

REZNIKOV, G.B.; BENENSON, L.S., kand. tekhn. nauk, retsenzent;
KORSUNSKIY, L.N., kand. tekhn. nauk, retsenzent; MASHAROVA,
V.G., red.; BELYAYEVA, V.V., tekhn. red.

[Aircraft antennas] Samoletnye anteny. Moskva, Sovetskoe
radio, 1962. 455 p. (MIRA 15:12)

(Airplanes--Electronic equipment)

(Antennas (Electronics))

(Airplanes--Radio equipment)

ZELKIN, Yefim Grigor'yevich; BENENSON, L.S., kand. tekhn.nauk,
retsenzent; KORBANSKIY, I.N., red.; FRIDKIN, L.M.,
tekhn. red.

[Construction of a radiating system with given radiation pattern] Postroyeniye izluchaiushchei sistemy po zadannoi diagramme napravlenosti. Moskva, Gosenergoizdat, 1963. 271 p. (MIRA 17:1)

RODIONOV, V.M.; BENENSON, L.S., red.; KUCHUMOVA, K.I., red.

[Transmission lines and superhigh frequency antennas;
collection of nomograms] Linii peredachi i anteny
sverkhvysokikh chastot; sbornik nomogramm. Moskva, So-
vetskoe radio, 1965. 118 p. (MIRA 18:7)

BENENSON, M. E

BENENSON, M. E.....Ekonomicheskie ocherki Kryma. (Simferopol'), Iuzhnoe Kooperativnoe
Izd.-vo, (1919). 77 p. DLC: Unclass.

SO: LC, Soviet Geography, Part II, 1951/Unclassified

BENENSON, M.

A.O. Bliumenfel'd; obituary. Vop. kur. fizioter. i lech. fiz.
kul't. 25 no. 3:285 My-Je '60. (MIRA 14:4)
(BLIUMENFEL'D, ALEKSANDR OSIPOVICH, 1905-1959)

BENENSON, M. Kh.

Benenson, M. Kh.

"Polarization of human skin with a direct current and changes in it under the influence of physical factors." Min Health ESFSR. Leningrad Sanitary-Hygiene Medical Inst. Leningrad, 1956. (Dissertation for the degree of Doctor in Medical Sciences)

Knizhnaya letopis'
No. 21, 1956. Moscow

BENENSON, M.P.

~~Case of echinococcosis of the posterior mediastinum.~~ Vest. rent.
i rad. 36 no. 2:73 Mr-Apr '61. (MIRA 14:4)

1. Iz rentgeno-radiologicheskogo otdeleniya (nachal'nik - dotsent
S.A. Sviridov) Tsentral'noy klinicheskoy bol'nitsy Ministerstva
putey soobshcheniya (nach. - zasluzhennyy vrach RSFSR V.N.
Zakharchenko).

(MEDIASTINUM--HYDATIDS)

KRAYTSE, L.I.; SERGEVNIN, V.V.; BENENSON, M.P.; POGREBNYAK, V.S.

Effectiveness of splenoportography in metastasis symptoms of
cancer of the stomach and pancreas. Vest.khir. no.9:45-49 '61.

(MIRA 15:3)

1. Iz 3-y kafedry khirurgii TSentral'nogo instituta usovershenst-
vovaniya vrachey (zav. - prof. V.I. Kazanskiy) i rentgeno-radio-
logicheskogo otdeleniya (nach. - dotsent S.A. Sviridov) na baze
TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya.
Adres avtorov: Moskva, Volokolmskoye shosse, d.34, TSentral'naya
klinicheskaya bol'nitsa Ministerstvo putey soobshcheniya.

(STOMACH--CANCER)

(PANCREAS--CANCER)

(SPLEEN--RADIOGRAPHY) (PORTAL VEIN--RADIOGRAPHY)

KHARITONOV, L.G. (Moskva Ye-401, Pionerskaya ul., d.13, kv.1); KAGAN, Ye.M.; BENENSON M.P.

Research on the functional characteristics of a prosthetic esophagus. Grud.khir. 4 no.6:80-83 N-D'62. (MIRA 16:10)

1. Is 3-y kafedry khirurgii TSentral'nogo instituta usovershenstvovaniya vrachey (zav. - prof. V.I.Kazanskiy), rentgenodiagnosticheskogo otdela (zav. - prof. I.A.Ihekhter) Gosudarstvennogo nauchno-issledovatel'skogo rentgenoradiologicheskogo instituta Ministerstva zdravookhraneniya RSFSR, rentgenologicheskogo otdeleniya TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya (zav. - dotsent S.A. Sviridov)

(ESOPHAGUS—SURGERY) (PROSTHESIS)

KHARITONOV, L.G. (Moskva Ye-401, Pionerskaya ul., d.13, kv.1); BENENSON, M.P.
(Moskva); MAKAROVA, K.A. (Moskva)

Combination of a leiomyoma and cancer of the esophagus. Grud. khir.
6 no.4:106-107 J1-Ag '64. (MIRA 18:4

9

210

Properties of oil-asphaltic insulation lacquers. M. Benenson, V. Zhelezinskii, G. Iosadon and B. Yudina. *Dep. Trans. Fed. (U. S. S. R.)*, 484 01:1460. Methods of lab. prep'n and testing of oil-insulation lacquers from mixts. of native bitumens and oils are described. The dielec. properties of lacquers obtained with linseed and perilla oils are equal to those prep'd. with China wood oil. Bituminous paints obtained with hempseed oil without the addn. of other oils are of inferior quality. Chas. Plan.

ASD 518 METALLURGICAL LITERATURE CLASSIFICATION

PROCESS AND PROPERTIES - RUBBER									
CA 25 Crystallization of lean varnishes. M. V. Betensson and A. A. Papulina. <i>Russk. Khim. Zh.</i> 1940, No. 7, 97. The object of the expts. was to investigate the causes of crystal of rosin in lean varnishes of the No. 7 type. The crystal of varnish is in a direct proportion to the acid num. of Ca resinate (base for varnish No. 7). The acid num. of Ca resinate in which rosin in the varnish is not crystal are below 120. The acidity of the varnish in which the crystal of rosin takes place is below 10. W. R. Hens									
ASB-55A METALLURGICAL LITERATURE CLASSIFICATION 1930S SYMBOLS 1930S SYMBOLS									

Alkyd varnishes and enamels M. V. Bengtson. *Revell News (Pop. Laboratories) From 1934, No. 11, 12, 18*

19 The purpose of the investigation is to formulate varnishes and enamels made from alkyls modified by oil or resin which are completely sol. in white spirits. Triethylamine, glycerol, resin, linseed oil, cottonseed oil and castor oil were used as raw materials. It was established that when castor oil or its mixts. with drying or semidrying oils were used alkyls could be prep'd. without a preliminary cross esterification, while alkyls based on cottonseed oil and on other semidrying and drying oils require a preliminary glycerolysis. A temp. of 250° gives the best results. Copper kettles should not be used for Cu phthalates are formed which cloud up the varnish and give it a red tint. The varnishes contained 60-40% alkyl base, 40-60% white spirits and 10-15% drier (on the basis of the alkyl). The oil content of the varnish base was 70-75%. Gray, black and other enamels were prep'd. Zinc white, lithopone, Pb and carbon black were used as pigments. All the enamels dried well, were elastic and shock resistant but gave chalky films when hot dried. Use of lithopone or Pb instead of zinc white eliminates chalkiness. For best luster the films should contain no more than 40-45% pigment.

David Achony

ASB S.A. METALLURGICAL LITERATURE CLASSIFICATION

26

Mars colors in enamel. M. Deryagin and S. I. Lisev, *skit. Byull. Akad. Nauk. SSSR, 1940, No. 6, 7-9.* A yellow Mars color ignited 4-5 hrs. at 1000°C in an oxidizing medium (air) is converted into a red-dish brown Mars. Good enamels in lively colors of high gloss were made from the ignited Mars colors. These enamels exhibit good stability toward atm. D. Aclony

HEMINSKY, M.V. (Leningrad); GORLOVSKIY, S.I. (Leningrad).

Use of new film-forming materials in printing. Poligr.proizv.
no.3:22-23 My-Je '54. (MLEA 7:8)
(Printing industry)

BENENSON, M. V.

USSR/Chemistry - Coatings

FD-885

Card 1/1 Pub.50 - 18/24

Author : Benenson, M. V., Gorlovskiy, S. I.

Title : ~~XXXXXXXXXXXXXXXXXXXX~~
Lithograph coating-varnishes for printing on sheet metal

Periodical : Khim. prom., No 6, 375 (55), Sep 1954

Abstract : The properties of oil varnishes for the purpose indicated are outlined.

Institution : Leningrad Varnish and Paint Plant

Submitted :

CH
Detection of shellac in varnish and lacquers. M. V.
Bogdanov, S. I. Goriunov, and P. A. (Batalaya) (Lacquer
Plant, Leningrad). *Doklady Akad. Nauk SSSR*
Proc. 4, No. 8, 17(1966).—Shellac in varnish or lacquer is
detected by forming a paste of ZnO and the material to be
tested; the presence of shellac is shown by the development
of a blue color. The test is specific, and is neg. for the com-
mon natural and artificial resins. John Lake Kays

(2)

BENENSON, M.V., inzhener

Improve the production of instruments used for testing lacquer and paint. Standartizatsiia no.5:70-71 S-0'55. (MLRA 8:11)

1. Leningradskiy zavod lakov i krasok
(Lacquer and lacquering--Testing) (Paint--Testing)

BEMENSON, M.V., inzhener; SLITSKAYA, F.A., inzhener.

Standards for shellac varnish. Standartizatsiya no. 4:70-71
J1-Ag '56. (MIRA 9:11)

1. Leningradskiy respublikanskiy khimicheskiy zavod lakov i
krasok.
(Varnish and varnishing--Standards)

AGGEYEV, P.K., prof.; ANDREYEV-GALANINA, Ye.TS., prof.; BASHENIN, V.A.,
prof.; BENENSON, M.Ye., doktor med.nauk; VYSHEGORODTSKYA, V.D.,
prof.; GESSEN, A.I., dotsent; GUTKIN, A.Ya., prof.; ZHDANOV, E.A.,
prof., laureat Stalinskoy premii; ZNAMENSKIY, V.F., prof.;
KLIONSKIY, Ye.Ye., prof.; MONASTYRSKAYA, B.I., prof.; MOSKVIN,
I.A., prof.; MUCHNIK, L.S., kand.med.nauk; PETROV-MASLAKOV, M.A.,
prof.; RUBINOV, I.S., prof.; RYSS, S.M., prof.; SMIRNOV, A.V.,
prof., zaslužhennyy deyatel' nauki; TIKHOMIROV, P.Ye., prof.;
TROITSKAYA, A.D., prof.; UDINTSEV, G.N., prof.; UFLYAND, Yu.M.,
prof.; FEDOROV, V.K., prof.; KHILOV, K.L., prof., zaslužhennyy
deyatel' nauki; VADKOVSKAYA, Yu.V., prof.; MARSHAK, M.S., prof.;
PETROV, M.A., kand.med.nauk; POSTNIKOVA, V.M., kand.med.nauk;
RAPOPORT, K.A., kand.biolog.nauk; ROZENTUL, M.A., prof.; YANKE-
LEVICH, Ye.I., kand.med.nauk; LYUDKOVSKAYA, N.I., tekhn.red.

[Book on health] Kniga o zdorov'e. Moskva, Gos.izd-vo med.lit-ry,
Medgiz, 1959. 446 p. (MIRA 1.2:12)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for
Zhanov, Udintsev). 2. Leningradskiy sanitarno-gigiyenicheskiy me-
ditsinskiy institut (for all, except Vadkovskaya, Marshak, Petrov,
Postnikova, Rapoport, Rozentul, Yankelevich, Lyudkovskaya).
(HYGIENE)

RAVKIND, Boris Maksimovich; TIKHONOV-BUGROV, Vasilii Dmitriyevich;
BEHNENSON, M.Ye., red.; SHEVCHENKO, F.Ya., tekhn.red.

[Therapeutic factors at the TSkhaltubo Health Resort] Lecheb-
nye faktory kurorta TSkhaltubo. Leningrad, Gos.izd-vo med.lit-ry.
Leningr.otd-nie, 1960. 45 p. (MIRA 13:11)
(TSKHALTUBO--HYDROTHERAPY)

BENENSON, Nata Moyseyevna; DMITRIIEVSKAYA, Anna Aleksandrovna; MONCHAK, Marat Lyudvigovich; MOTORINA, Nina Leonidovna; SEVEROV, Anatoliy Konstantinovich; UCHITEL', Moysey Yakovlevich; STRASHUN, N.Z., rad.; FOMICHEV, A.G., red.lzd-va; BELOGUROVA, I.S., tekhn.red.

[Use of P-68 resin in the manufacture of radio apparatus] Opyt primeneniia smoly P-68 v izdeliakh radiotekhnicheskoi apparatury. Leningrad, 1962. 10 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Sinteticheskie materialy, no.5) (MIRA 15:12)

(Radio---Equipment and supplies)

(Electric relays)

(Resins, Synthetic)

BENENSON, Nata Moiseyevna; BOTSMA, Mikhail Porfir'yevich; KALININ, Nikolay Pavlovich; POPOVA, Zinaida Ivanovna; PODGORSKIY, Vsevolod Vital'yevich; BORZOV, V.P., koad. fiz.-mat. nauk, red.; SHILLING, V.A., red.izd-va; GVIRTZ, V.L., tekhn.red.

[Work practices of the spectrum analysis laboratory at the "Radist" Plant] Opyt raboty spektral'noi laboratorii zavoda "Radist." Leningrad, 1962. 10 p. (Leningradskii dom nauchno-tekhnikeskoi propagandy. Obmen peredovym opytom. Seriya: Kontrol' kachestva produktsii, no.8) (MIRA 16:3) (Spectrum analysis)

CHECHURINA, Ye.N.; BENENSON, N.M.; VINOGRADOVA, L.S.

~~Classification of document is not known~~
Measurement of the coercive force of materials. Zav. lab. 29
no.6:722-724 '63. (MIRA 16:6)

1. Leningradskiy gosudarstvennyy zavod "Radist" i Vsesoyuznyy
nauchno-issledovatel'skiy institut metrologii imeni
Mendeleeva.

(Materials—Magnetic properties)

RENNERSON, O.I.

Arend Arusaar, a locomotive engineer from Tallinn. Blok. 1 tepl.
tiaga 6 no.11:9 N '62. (MIRA 16:1)
(Locomotive engineers)

BENENSON, O.Ye., inzh.

Applying the method of electric heating in making large products
using lightweight cinder concrete which has not been hardened
in autoclaves.. Stroil. mat. 5 no.1:27-29 Ja '59. (MIRA 12:1)
(Cinder blocks)

BENJENSON, O.Ye.; KISELEV, N.G.; BUZIDVICH, G.A., kand. tekhn. nauk,
nauchnyy red.; FIDOROVA, T.N., red. izd-va; RUDAKOVA, N.I.,
tekhn. red.

[Using pulverized ashes from Thermal Electric Station in
producing building materials] Ispol'zovanie pylevidnoi so-
ly TETs dlia proizvodstva stroitel'nykh materialov: opyt
stroitelei Angarska. Moskva, Gos. izd-vo lit-ry po stroit.,
arkhit. i stroit. materialam, 1961. 84 p. (MIRA 14:5)
(Angarak--Building materials industry) (Ashes (Technology))

BENENSON, S. D.

20160 BENENSON, S. D. Rol' akusherki v okhrane truda beremennykh i kormyashchikh
rud'ya zhenitsin. Fel'dsher i akusherka, 1949, No. 6, s. 16-21

SO: LETOIS ZHURNAL STROY, Vol. 27, Moskva, 1949

DOLITSKIY, V.A., BENSON, V.A.

Detailed division of lower Cretaceous sediments in the Harmun-
danak and Altykul' oil fields on logging data. Trudy MINKHIGP
no.27:168-194 '60. (MIRA 13:9)
(Caspian Lowland--Geology, Stratigraphic)

DOLITSKIY, V.A.; BENENSON, V.A.; MOVSHOVICH, E.B.

Method of stratigraphic division of Cretaceous sediments of
certain areas in Astrakhan Province, based on borehole records.

Trudy VNIGNI no.29:122-137 vol.3 '61. (MIRA 14:9)

(Horing)

(Astrakhan Province—Geology, Stratigraphic)

DOLITSKIY, V.A.; BENENSON, V.A.

Lower Cretaceous sediments in the southeastern part of the
Caspian syncline. Trudy MINKHIGP no.36:13-34 '62. (MIRA 15:6)
(Caspian Sea region--Geology, Stratigraphic)

DOLITSKIY, V.A.; BENENSON, V.A.

Lower Cretaceous sediments of the Kulsary area. Trudy MINGHIGP
no.25:162-184 '59, (MIRA 15:5)
(Kulsary region---Geology, Stratigraphic)

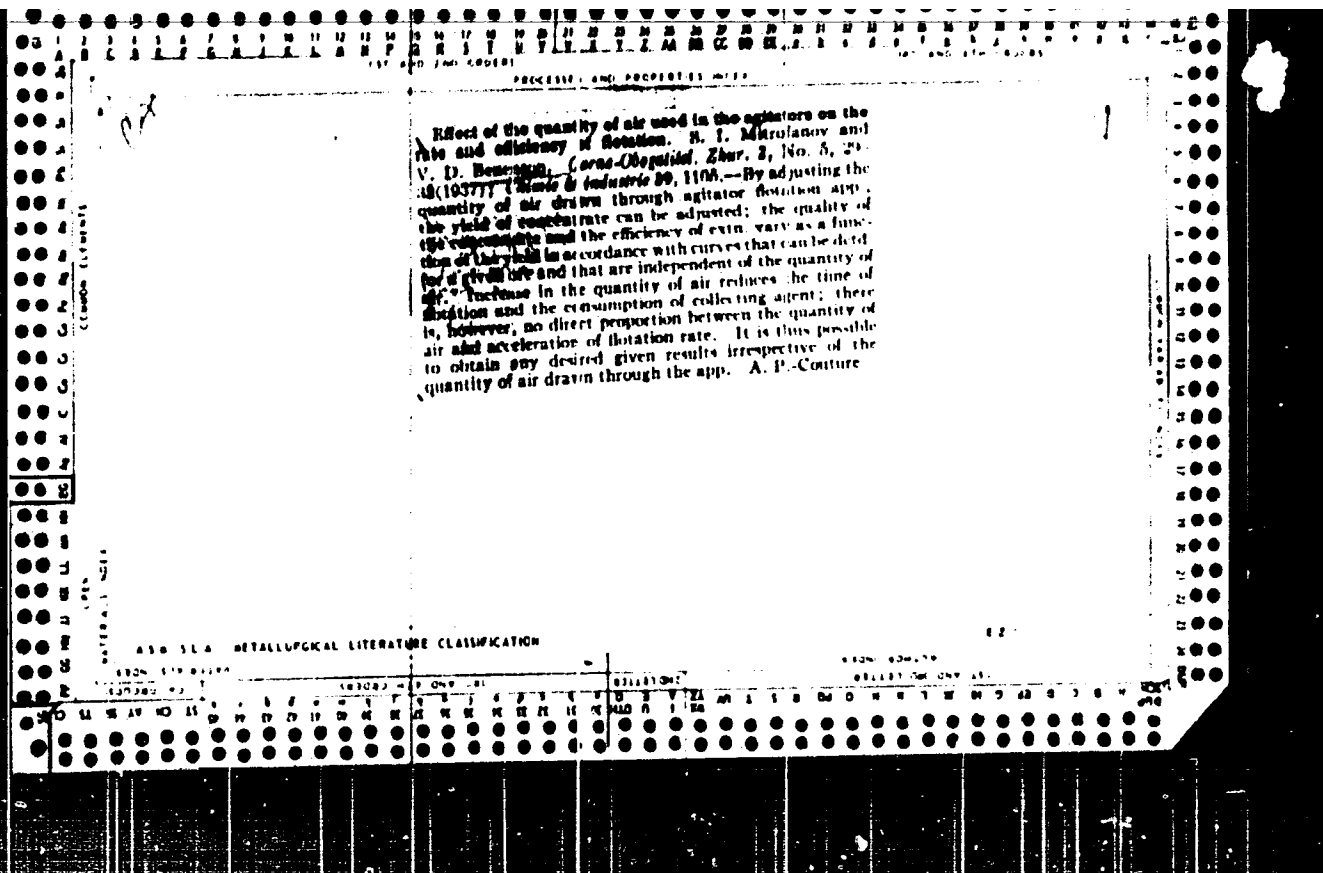
BENENSON, V.A.

Lithofacies and thicknesses of Lower Cretaceous sediments in the southern part of the Caspian syncline as related to their oil and gas potentials. Study VNIGRI no.190:298-327 '62.

(MIRA 16:1)

(Russia, Southern—Petroleum geology)

(Russia, Southern—Gas, Natural—Geology)



W

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Oxidation of chalcopyrite under conditions of pulverization and flotation. S. I. Mitrofanov and V. D. Benenson. *Trudy Metal.* 1938, No. 11, 53-5. *Khim. Referat. Zhur.* 2, No. 5, 81 (1939).—The effects of pH, temp., time of pulverization and aeration and the percentage of the liquid in the pulp on the oxidation of chalcopyrite during pulverization and flotation were investigated. Cu^{+2} and Fe^{+3} and a no. of S oxides were the sol. products of oxidation. The amt. of S which enters soln. can serve to det. the decompn. of chalcopyrite, and the power to reduce $KMnO_4$ shows the relative amts. of the lower oxides of S. The oxidation of chalcopyrite increases with increase of alk. of the pulp. It is more energetic in a lime medium than in a soda medium. Oxidation increases with temp., time of pulverization, percentage of liquid in the pulp. The floatability of Zn blende on addn. of chalcopyrite increases as a result of activation by Cu^{+2} produced by oxidation of chalcopyrite after the pulverization and of the adsorption of CN^- by chalcopyrite, which lowers the concn. of cyanide in the soln. and, thus, lowers the degree of depression by the cyanide. W. R. Houn

AND SEE METALLURGICAL LITERATURE CLASSIFICATION

SECRET, U. S.

Jul/Aug 1967

USSR/Metals
Flotation
Ore Dressing

"Selective Flotation of Complex Ores," V. D. Benenson, Candidate in Technical Sciences, 5 pp

"Tsvetnyye Metally" No 4

Schematic diagram of the flotation process from the ore pulp to the extraction of the copper concentrates. Several graphs show the relative general amount of copper concentrate in copper ore, the amount of copper concentrate in the final product, and the rise of the degree of copper concentration in copper concentrate for the past five years. The author states that as

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USSR/Metals (Contd)

soon as the Ministry of Nonferrous Metallurgy gives aid in the form of better quality flotation agents the sooner it will be possible to increase the quality and quantity of copper concentrate production.

24377

Benson, V.D.

BENENSON, V.D., kand.tekhn.nauk.

Flotation indices for lead-containing ores comminuted in ball
and rod mills. TSvet.met. 28 no.2:9-15 Mr-Apr '55. (MIRA 10:10)

1.Uralmekhanobr.
(Flotation) (Lead ores) (Crushing machinery)

AUTHOR: Benenson, V.D., Candidate of Technical Sciences, Ural²⁸⁹mekhanobr.
 TITLE: Industrial experience of the introduction of a stage scheme for the beneficiation of copper-lead-zinc ores. (Promyshlennyy opyt vnedreniya stadialnoy skhemy obogashcheniya medno-svintsovo-tsinkovykh rud.)
 PERIODICAL: "Tsvetnye Metally" (Non-ferrous metals), 1957, No. 1, pp. 7 - 14, (U.S.S.R.)

ABSTRACT: The Ministry of Non-ferrous Metallurgy of the U.S.S.R. is engaged on an extensive programme for the development and introduction of the stage process for the beneficiation of ores. This process has been applied in the Ural region to copper-, lead-, zinc ores. The adoption of this scheme required the development of new conditions for grinding and classification of a method for treating the intermediate products and reaction conditions which would enable the maximum benefit to be obtained from the new technology. The solutions arrived at have enabled the de-leading and de-coppering of zinc concentrates to be achieved on an industrial scale; the technology for the production of pyritic concentrates has been developed simultaneously.

The new technology has been successfully applied at the Zolotushinsk Beneficiation Plant, where the extraction of metals has increased, compared with that obtained in January to April, 1956, as follows: lead into lead concentrate by 2.5%. copper into copper concentrate 2% over planned values.

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Industrial experience of the introduction of a stage scheme
for the beneficiation of copper - lead - zinc ores. (Cont.)

Zinc concentration in zinc concentrate has increased by 2-3%.
These results have been obtained by the extensive application
of fine grinding and the use of hydro-cyclones, the introduction
of inter-stage flotation of lead and copper minerals with stage
depression of zinc ~~minerals~~. Hydro-cyclones and flotation
was the basis of the scheme by which pyritic concentrates were
successfully obtained from plant waste. In view of the
successes obtained with the new technology, its application
to other poly-metallic ores is recommended.
Flow sheets for the processes described are given in this
article.
There are 5 tables and 7 figures.

BENENSON, V.D.

136-1-4/20

AUTHORS: Benenson, V.D., Strod, A.P. and Lagernikov, G.N.

TITLE: Operating Results of the Zolotushansk Beneficiation Works
under a Staged Flow Sheet (Rezultaty raboty Zolotushinskoy
obogatitel'noy fabрики po stadiyal'noy skheme)

PERIODICAL: Tsvetnye Metally, 1958, No.1, pp. 16 - 18 (USSR)

ABSTRACT: The authors describe the staged concentration of complex copper-lead-zinc ores at the Zolotushinsk Beneficiation Works. The practice was developed by works personnel in close co-operation with the Uralmekhanobr Institute. Primary sulphides represent the greater part of the ore and consist of sphalerite, chalcopyrite and galenite; in addition to secondary sulphides and oxidised minerals, the ore contains soluble copper, zinc and iron salts, as well as small quantities of other materials. The dissemination of the sulphide minerals is non-uniform; the main losses of copper and lead in the zinc concentrates when the ore is ground to 90% - 74 μ occur as concretions. The staged grinding and flotation adopted are said to consist essentially of first-stage flotation at 42-50% - 74 μ to give a copper-lead concentrate with 20-26% Pb (recovery 60-70%), 10-14% Cu (recovery 40-50%) and 7-10% Zn (loss under 6-9% of content in the ore); this is followed by a second-stage in which hydrocyclones and spiral classifiers are used. The characteristics of the two

Card 1/2

136-1-4/20

Operating Results of the Zolotushinsk Beneficiation Works under a Staged Flow Sheet

stages have been described previously (Ref.1). The authors show the flow sheet of the staged process as used since May 15, 1956 and tabulate comparative data on this and on the previously used selective-flotation scheme (Tables 1 and 2). Besides lowering the metal contents of the tailings, the adoption of the new scheme (with appropriate plant and organisational changes) is said to have led to a 7% increase in the weight of ore treated per unit time with a 35% decrease in costs per ton of ore. An editorial note points out that the higher lead recovery and decreased lead and copper losses in the tailings have taken place on account of the deterioration of the lead concentrate. There are 1 figure, 2 tables and 1 Russian reference.

ASSOCIATION: Uralsmekhanobr and the Zolotushinsk Beneficiation Works (Zolotushinskaya obogatitel'naya fabrika)

AVAILABLE: Library of Congress
Card 2/2

BENENSON, Ye.I., inzh.; REZNIKOVA, R.S.

Characteristics of heaters for turbine systems. *Energomashinostroenie*
7 no.3:38-41 Mr '61. (MIRA 16:8)

(Heat exchangers)

BENENSON, Ye.I., inzh.

Choice of optimum surface area of boilers. Teploenergetika 9
no.12:49-53 D '62. (MIRA 16:1)

1. Turbomotornyy savod.

(Boilers)

BENENSON, Ye.I., inzh..

Diagram of the operating modes of a central heating turbine with
two heat-supplying steam takeoffs. Energomashinostrzenie 10 no.6:
19-22 Je '64. (MIRA 17:9)

BENENSON, Ye.I., insh.

The Pr-25-90/10/0,9 steam turbine. Energomashinostroenie 10
no.12:46-47 D '64. (MIRA 18:2)

BEFENSON, Ye.I., inzh.

Step-by-step heating of network water in turbines with two
steps of heating steam take-off. Teploenergetika 11 no.10:
66-69 0 '64. (MIRA 18:3)

1. Ural'skiy turbomotornyy zavod.

BERMAN, L.D., doktor tekhn. nauk; BENENSON, Ye.I., kand. tekhn. nauk;
PCHELKINA, I.L., inzh.

Choice of the optimal dimension of the condenser and water
cooling tower of a central heating turbine. Elek. sta. 36
no.9:19-24. S '65. (MIRA 18:9)

BENENSON, Ye. V. Cand. Med. Sci.

Dissertation: "Formation of the Pathological Gum Pocket and Morphological Modifications of Parodontal Arteries." Moscow Stomatological Inst., 23 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

BENEMSON, Ye.V., assistant, kandidat meditsinskikh nauk; ZHILINA, V.V.,
ordinator; YAGUDIN, A.D., ordinator.

Aloe extract therapy in parodontitis. Stomatologiya no.2:20-22
Mr-Apr '54. (MIRA 7:4)

1. Iz kafedry terapevticheskoy stomatologii (zaveduyushchiy -
professor Ye.Ye.Platonov) Moskovskogo meditsinskogo stomatolo-
gicheskogo instituta (direktor - dotsent G.N.Beletskiy).
(Teeth--Diseases)

BENENSON, Ye. V.
BENENSON, Ye. V., kand. med. nauk

Effectiveness of methods for treating pyorrhea alveolaris
(amphodontosis). Stomatologiya 36 no. 6:21-23 N-D '57. (MIRA 11:2)

1. Iz kafedry terapevticheskoy stomatologii (zav. - prof. Ye. Ye.
Platonov) Moskovskogo meditsinskogo stomatologicheskogo instituta
(dir. - dotsent G. M. Beletskiy)
(GUMS--DISEASES) (THIAMINE) (ALOE)

KONYUSHKO, D.P. dots., ~~HEMENSQI, Fev~~ assistant.

Change in the sensitivity of the peridental tissues to pressure following different methods for treating periodontoclasia. Stomatologiya 37
no.6:14-16 N-D '58 (MIRA 11:12)

1. Iz kafedry ortopedicheskoy stomatologii (zav. - prof. V.Yu. Kurlyandskiy) i kafedry terapevticheskoy stomatologii (zav. - prof. Ye.Ye. Platonov) Moskovskogo meditsinskogo stomatologicheskogo instituta (dir. - dots. G.N. Beletskiy).
(GUMS--DISEASES)

BENENSON, Ye.V., assistant; MAMUL', Ye.V., mladshiy nauchnyy sotrudnik

Distribution of tagged thiamine in the jaws of animals; a
preliminary report. Teor. i prak. stom. no.5:175-178 '61
(MIRA 16:12)

1. Iz kafedry terapevticheskoy stomatologii (zav. - prof. Ye.
Ye. Platonov) Moskovskogo meditsinskogo stomatologicheskogo
instituta.

ACC NR: AP6033937

SOURCE CODE: UR/0280/66/000/004/0014/0027

AUTHOR: Benenson, Z. M. (Moscow); Khazen, E. M. (Moscow)

ORG: none

TITLE: Sequential analysis methods in problems of multiple hypothesis recognition

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 4, 1966, 14-27

TOPIC TAGS: mathematic analysis, mathematic method, recognition process, data correlation, correlation statistics, normal distribution, Markov process

ABSTRACT: The authors consider the problem of distinguishing between multiple hypotheses and recognition of hypotheses in the absence of complete information concerning the laws governing their distribution. A unified synthesis procedure for rules of sequential solution for such problems is proposed. The sequential procedure consists in constructing a certain function (or certain statistics) $L(x_1, \dots, x_m)$ on the basis of observed values $x_1, \dots, x_m$, and a comparison with threshold values. In the general case, these threshold values vary as functions of the time or number of observations. Optimum variable threshold values are determined by means of recurrent estimates of the conditional risk for this function. The selection of the statistics L is performed with regard to the limitations of the required memory capacity. The sequential

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ACC NR: AP6033937

rules derived can be implemented with relative ease. The sequential solution rule in the presence of two simple hypotheses is explained as follows: let $P_{\theta_1}(x_1, \dots, x_m)$ be the conditional probability density of the values $x_1, x_2, \dots, x_m$ observed under conditions when the value of the parameters equals $\theta_i (i = 1, 2, \dots)$. Then, to obtain a solution, a probability relation is constructed

$$L_m = L(x_1, x_2, \dots, x_m) = \frac{P_{\theta_1}(x_1, x_2, \dots, x_m)}{P_{\theta_2}(x_1, x_2, \dots, x_m)}$$

and compared with the thresholds A and B . If $L_m \geq A$, the hypothesis $\theta = \theta_1$ is assumed to be correct, if $L_m \leq B$, the hypothesis $\theta = \theta_2$ is assumed to be true; if, however, $B < L_m < A$, another observation is carried out to get x_{m+1} ; L_{m+1} is constructed and compared with the threshold A and B . If θ_1 and θ_2 are constants, $P_{\theta_1}(x_1, \dots, x_m)$ are known functions and the experimental conditions do not change during the observation, then the thresholds A and B are also constant, independent of the number of observations. This rule provides an effective solution for distinguishing between two simple hypotheses. However, as a rule, the problems involve not two, but many competing hypotheses. Furthermore, the conditional probability density may not be known. The

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ACC NR: AP6033937

authors deal with this type of problem by proposing a method for general synthesis of optimal variable thresholds. In addition, formulas for the probability of false solutions are derived. Orig. art. has: 31 formulas, 3 figures.

SUB CODE: 12/

SUBM DATE: 21Jan56/

ORIG REF: 004/

OTH REF: 003

Card 3/3

BENENSON, Z. S.

"Case of Abscess of the Cerebellum of an Infant, Resulting in Recovery ,"
Vest. Oto-rino-laringol., No. 3, 1948.

Moscow Children's Hospital .

BEMENSON, Z. S.

"Perforation of the Nasal Wall in Serious Malignant Infantile Rheumatism,"
Pediatrics, No. 3, 1949.

BENENSON, Z. S.

Condition of the cochlear and vestibular apparatus in children
in tuberculous meningitis. Vest. otorinolar., Moskva 13 no.4:
29-37 July-Aug 1951. (CML 21:1)

1. Of the Neural Division of Moscow Children's Clinical
Hospital.

DEMENSON, A. S.

DEMENSON, A. S. -- "Impairment of Auditory and Static-Kinetic Analyzers in Tubercular Meningitis of Children." (Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min Public Health USSR, Central Inst for the Advanced Training of Physicians, Moscow, 1955.

SO: Knizhnaya Letopis' No. 31, 3 July 1955.

*For the Degree of Candidate in Medical Sciences.

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, 15-57-10-14475
pp 183-184 (USSR)

AUTHOR: Beneo, Ye.

TITLE: The Results of Investigations for Oil Exploration in Sicily (Rezultaty issledovaniy v tselyakh poiskov nefi v Sitsilii)

PERIODICAL: V sb: 4-y Mezhdunar. نفت. kongress, 1. Moscow, Gostoptekhizdat, 1956, pp 108-119

ABSTRACT: The structure of Sicily is determined by autochthonous rigid masses distributed about the periphery of the island (Miocene-Upper Cretaceous limestones, metamorphosed Paleozoics of the Peloritan Mountains, the prominences of Mesozoic and Cenozoic limestones and sandstones in the Madonie Mountains, and the prominent limestones of Palermo and Trapani Mountains) and by a large basin occupying the central part of the island.

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15-57-10-14475

The Results of Investigations for Oil (Cont.)

The basin is filled with beds of friable sediments (200 m thick), consisting of normal sedimentary sands and allochthonous chaotic clay masses with erratic blocks of limestone, sandstone, and igneous rocks, deposited there by torrents and by landslides. Some of the landslides were submarine. Among the clay masses a distinction is made between clay breccias and clay tectonites of surface origin. The stratigraphy of the upper beds filling the basin has been deciphered from drill holes. 1) Clay breccias occur from the upper Pliocene down to the Triassic and contain plastic and rigid erratic components. 2) The Astian series is represented by calcareous sandstones. 3) Plaisancian rocks are sandy clays. 4) There are clay breccias with leases of white marls containing globigerina of lower Pliocene age. 5) A gypseous-sulfurous formation with stony and potassic layers belongs to the Sarmatian. 6) There are also clay breccias in the Sarmatian. 7) A unit of clay breccias and clay tectonites, with marls and conglomerates, is of Tortonian age. 8) Another zone of clay breccias is either of Tortonian or pre-

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15-57-10-14475

The Results of Investigations for Oil (Cont.)

Tortonian age. The author includes a bibliography with 21
references.
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Mu. A. Kosygin

PHASE I BOOK EXPLOITATION

SOV/5385

Benerman, Vladimir Ivanovich, and Nikolay Nesanel'yevich Lovtskiy

Proyektirovaniye silovogo elektrooborudovaniya promyshlennykh predpriyatiy (Designing the Electric Power Equipment of Industrial Enterprises) Moscow, Gosenergoizdat, 1960. 382 p. 17,000 copies printed.

Ed.: G. M. Knorrang; Candidate of Technical Sciences; Tech. Ed.: Ye. M. Soboleva.

PURPOSE: This book is intended for technical personnel engaged in designing industrial electrical equipment, and may also be useful to technical personnel concerned with the assembly of this equipment and to university and tekhnikum students in this field.

COVERAGE: The authors state that their aim was to create a systematic teaching aid which would assist in designing electric power equipment in conformity with up-to-date requirements.

Card 1/9

Designing the Electric Power (Cont.)

SOV/5385

The book presents the general considerations related to the planning of electric power equipment and offers suggestions on the selection of electric motors, as well as of control and protection apparatus. Problems concerning electric power distribution from substations, the computation of electric power networks, and a number of other questions connected with the designing of modern electrical equipment are discussed. The authors thank Ya. M. Bol'sham, Engineer, Head of the Technical Section of the "Tyazhpromelektroproyekt" (State Design and Planning Institute for the Heavy Electrical Industry), who reviewed the book. There are 11 references, all Soviet.

TABLE OF CONTENTS:

Ch. I. General Considerations on Designing Electric Power Equipment	7
1. Concept of electric power equipment and problems of its designing	7

Card 2/9

BENIRMANOWA, Z.

"Health resorts in Lower Silesia", p. 16, (ZDROWIE, Vol. 5, No. 7, 1953, Warszawa, Poland)

SO: Monthly List of European Accessions, L.C., Vol. 3, No. 4, April, 1954

LICHTENBERG, Jar. Prof., Dr.; BENES, A., MUDr.

Activation of collateral circulation in obliteration of arteries of the extremities by high-pressure transfusion. Cas. lek. česk. 94 no.43:1153-1157 21 Oct 55.

1. Chir. klinika VLA, Hradec Kralove.

(ENDARTERITIS, OBLITERANS

legs, then., activation of collateral circulation by intraarterial transfusion of oxygenated blood.)

(BLOOD CIRCULATION, in various diseases

endarteritis obliterans of legs, activation by intraarterial transfusion of oxygenated blood.)

(BLOOD TRANSFUSION, in various diseases

endarteritis obliterans of legs, activation of collateral blood circulation.)

BENES, Antonin, Pplk., MUDr.

Transport immobilisation of the head. Rozhl. chir., 35 no.6:
377-384 June 56.

1. VLA J. Ev. Purkyně Hradec Kralove, chir. klinika.

(HEAD, wds. & inj.

transport immobilisation of head by rubber ring attached
to head & stretcher (Cs))

(WOUNDED AND SICK

transport immobilisation of head wds. by rubber ring
attached to head & stretcher (Cs))

A short review of the various modes for the transport immobilization of head
wounds is given. A rubber ring which may be attached to both the head and
the stretcher is recommended.

18

STEEL WELDABILITY and ITS TESTING. A.Benes. (Svarovnik, 1948, vol. 4, May, pp. 49-55). (In Czech). After discussing generalities on weldability, notch-toughness tests carried out on samples cut from and near welds are mentioned, and it is stated that such tests are useful only for testing steels which are subject to ageing. The Jominy test is described in detail; this test method has proved satisfactory, particularly in the case of automatic welding.---E.G.

BENES, ANTONIN.

Elektrotechnologie. Antonin Benes [a.] Josef Brable. Praha, Statni pedagogicke nakl., 1953. 180 p. (Ucebni texty vysokych skol) [Electrotechnology. diagrs.]

SO: Monthly List of East European Accessions, Vol.3, No.3, Library of Congress, March 1954, Uncl.

USSR/Engineering - Tools

Card 1/1 Pub. 128 - 16/26

Authors : Benesh, Antonin

Title : The properties of welded joints, welded with electrodes having neutral and basic coatings

Periodical : Vest. mash. 2, 71-81, Feb 1954

Abstract : The contemporary methods used in Czechoslovakia for welding low-carbon steels are discussed. Various types of electrodes having neutral and basic coatings are described, and tables giving technical specifications are presented. Graphs.

Institution :

Submitted :

BENES, A.

"A New Intelligentsia Is Growing Up", P. 2, (TECHNICKE NOVINY, Vol. 2, No. 10, May 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (BEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

HEMESH, Antonin, professor, doktor tekhnicheskikh nauk.

Properties of joints welded by electrodes with neutral and with
basic coating. Vest.mash. 34 no.2:80-81 F '54. (MIRA 7:3)

1. Kafedra tekhnologii metallov mashinostroitel'nogo i elektro-
tekhnicheskogo fakul'teta Przhskogo politekhnicheskogo instituta.
(Electric welding)

PEREL, A.

A contribution to evaluating the fusible weldability of cast steel. p. 24.
(Zvaranie, Vol. 3, no. 1, Feb. 1954, Praha.)

SO: Monthly List of East European Accession, (EEL), LC, Vol. 4,
No. 11, Nov. 1955, Uncl.

BENES, A.

Estimation of the melting weldability of alloy steels. p. 231.
ZVARACSKY SBORNIK, Bratislava, Vol. 3, no. 3/4, 1954. (Svaracsky sbornik)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
June 1956, Uncl.

BENES, A.

The education of welding engineers in the USSR. p. 347.

ZVARANIE Vol. 4no. 11, Nov. 1955

Czechoslovakia

Source: EAST EUROPEAN LISTS Vol. 5, no. 7 July 1956

BENES, A.:

TECHNOLOGY

Periodicals: Hutnicke Listy Vol. 13, No. 13, Dec. 1958

BENES, A.: VRZAL, V. Wear of metals and its testing. p. 1123

Monthly List of East European Accessions (EEAI) LC Vol. 8, No. 5 May 1959, Unclass.

BENES, Antonin, prof.

"Rationalisation of welding" by Rudolf Krnsk. Reviewed by Antonin Benes.
Zvaranie 10 no.11: N '61.

BENES, A.

Development of the study of electrical engineering at the Czech Institute of Technology in Prague. p. 173.

(Elektrotechnicky Obzor. Vol. 46, no. 4, Apr. 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

CVETKOV, Nikolajevic, Vladimir [TSvetkov, Vladimir Nikolayevich],
kandidat technickych ved; BENES, Antonin [translator]

Determining the time constant of the deformation relaxation
in the chrome upper-leather. Pt.2. Kozarstvi 13 no.2:37-38
F '63.

1. Rektor Vysoke skoly technicke lehkeho prumyslu, Moskva
(for Cvetkov). 2. Vyzkumny ustav kozedelný, Gottwaldov (for
Benes).

ZURABJAN, Karapet Michajlovic; BENES, Antonin [translator]

Influence of tanning and impregnation on vapor permeability of leather. Kozarstvi 13 ro.4:118-122 Ap '63.

1. Ustredni vyzkumny ustav kozedelný, Moskva, SSSR (for Zurabjan). 2. Vyzkumny ustav kozedelný, Gottwaldov (for Benes).

BENEŠ, Antonín

Concise analysis of thoracic injuries on the basis of material of the Surgical Department of the Medical Faculty at Hradec Kralove during 1951-1960. Sborn.ved.prac.lek.fak. Karlov. Univ. (Hrad.Kral) 6 no.3:199-205; '63.

1. Chirurgická klinika, Universita Karlova; přednosta: prof. MUDr. J. Procházka.

*

KAPUSTIN, Ivan Il'ich, doktor techn.ved, prof. (Moscow); BENES, Antonin
[translator]

Production automation, man and work aesthetics. Kozarstvi 14,
no.7;200-202 J1 '64.

1. Research Institute of Leather, Gottwaldev (for Benes).

STRACHOV, Ivan Pavlovic [Strakhov, Ivan Pavlovich] doktor technickych ved;
KUCIDI, D.A., inz.; BENES, Antonin [translator]

Use of methylol and methylated methylol derivatives of melamine
for improvement of sole leather quality. Kozarstvi 14 no.8:232-236
Ag '64.

1. High Technological School of Light Industry, Moscow (for Strachov
and Kucidi). 2. Research Institute of Leather Industry, Gottwaldov
(for Benes).

BENES, B.

"Problem of determining the resistance of cold-spot welding and of the effect of picking on quality."

p. 291 (Zvaranie) Vol. 6, no. 10, Oct. 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

BENES, B.

Therapy and management of Dupuytren's contracture. Bratisl. lek.
listy 34 no.5:518-524 May 54.

1. Z Kliniky plastickej chirurgie LFŠU v Bratislave, prednosta doc.
S.Denjen.

(DUPUYTREN'S CONTRACTURE, therapy,)

BENES, B. MUDr

Treatment of electric current burns of the limbs. Koshl.chir. 34
no.7:401-406 Aug 55.

1. Zyskuvany ustav traumatologicky v Brno, reditel prof. MUDr
Vlad. Novak

(BURNS

electric burns of extremities, pathol. & ther.)

(ELECTRICITY, injurious effects

burns of extremities, pathol. & ther.)

BENES, Borivoj, MUDr.

Hand injuries caused by electric current. Acta chir. orthop.
traum. cech. 23 no.2:65-67 Feb 56.

1. Vyskumny ustav Traumatologicky, red. prof. MUDr. Vl. Novak.
 (HAND, wds. & inj.
 caused by electric current, ther. (Cs))
 (ELECTRICITY, inj. eff.
 hand inj., ther. (Cs))
 (WOUNDS AND INJURIES
 hand., caused by electric current, ther. (Cs))

BENES, B., MUDr.

Comminuted fracture of calcaneus. Acta chir. orthop. traum. cesk.
23 no.5:270-271 Sept 56.

1. Vykumny ustav traumatologicky v Brne, reditel prof. Dr.
Vladimir Novak.

(CALCANEUM, fract.
comminuted, case reports (Cz))

MILCOCH, Rudolf; HENES, Borivoj

Intramedullary nailing and cortisone. Acta chir. orthop. trauma. cech. 25
no.6:459-461 Nov 58.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. dr. Vladimir
Novak. R. M., Brno, Ponavka 6.

(CORTISONE, eff.

on intramedullary nailing of fract. (Cz))

(FRACTURES, surg.

intramedullary nailing, eff. of cortisone (Cz))

BENES, Borivoj

Replacement of the 1st metacarpus in the simultaneous loss of 2d and 3d fingers. Acta chir. orthop. trauma. Cech. 28 no.6:486-490 D '61.

1. Vyzkumny ustav traumatologicky v Brne, reditel prof. MUDr. Vlad. Novak.

(FINGERS wounds and injuries)

PEMEL, F..

Principles of the economical use of alloy steel in bolt and nut factories. p. 6/1.

HUTNICKE LISTY. Vol. 11, no. 11, Nov. 1956

Brno, Czechoslovakia

SOURCE: East European Lists, (EEAL) Library of
Congress, Vol. 6, No. 1, January 1957

AUTHORS: Beneš, F. and Soška, F.

CZECH/37-58-6-3/30

TITLE: Shear Motion of a System of Material Points and of Bodies
With a Continuous Distribution of the Matter (Střížný
pohyb soustav hmotných bodů a tělesa s hmotou spojitě
rozloženou)

PERIODICAL: Československý časopis Pro Fysiku, 1958, Nr 6,
pp 650 - 652 (Czech)

ABSTRACT: New concepts are introduced which characterise shear motion. The equations of motion are derived for systems consisting of material points and for a body with a continuous distribution of matter. The terms introduced here for the shear motion show a formal similarity to the terms relating to rotary movement but are not derived from those. The justification for introducing the given new terms was proved during the study of shear oscillations relative to a plane. The shear oscillations relative to a surface can be described by these new terms only as long as they occur sufficiently near or if the shear surface can be substituted by a plane. There are 1 figure and 1 Czech reference.

ASSOCIATION: Katedra matematiky a fyziky VŠS, Liberec (Chair of
Mathematics and Physics of VŠS, Liberec)

SUBMITTED: March 20, 1958
Card1/1

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BENES, F.; DRASNY, V.

Fatigue strength of gears. p. 117

STROJIRENSVI (Ministerstvo tezkého strojírenství, ministerstvo přesného strojírenství
Ministerstvo automobilového průmyslu a zemědělských strojů)
PRAHA, Czechoslovakia
Vol. 9, no. 2, Feb. 1959

Monthly list of East European Accessions (EMAI), IC, Vol. 1, no. 7.
July 1959
Uncl.

Z/034/60/000/012/002/015
E073/E535

AUTHORS: Beneš, František, Engineer and Tlustá, Dagmar, Engineer

TITLE: Ar¹senic and Phosphorus in High Alloy Chrome-nickel Steels ¹⁸

PERIODICAL: Hutnické listy, 1960, No.12, pp.929-936

TEXT: Due to the necessity of using in the near future certain Soviet and Czech ores with an increased content of arsenic, the authors considered it necessary to investigate the possibility of eliminating this harmful element from ores and of also establishing the maximum permissible content of arsenic in steels. It is not possible to single out in Czechoslovakia any one steelworks which should specialize in economic processing and sorting of steels with higher arsenic contents. Also it is not possible to specialize the manufacturing programme of a single plant in such a way that it should be able to process raw materials with an increased content of arsenic, since every Czech steelworks that manufactures products in which a higher content of arsenic is permissible (for instance rails) also manufactures special steels in which even small fractions of a percent of arsenic has a highly unfavourable effect. Extensive experiments led to the conclusion

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Arsenic and Phosphorus in High Alloy Chrome-nickel Steels

that for low carbon deep-drawing steels and for constructional carbon and low alloy steels the arsenic content must not exceed 0.030 to 0.040%. This is in good agreement with the Soviet draft specifications published in Standartizatsiya, 1959, No.7. Czech standard specifications neither consider nor permit any arsenic content in steels, although random checks on Czech steels showed that the arsenic in these varied between 0.010 to 0.020%. Earlier experiments on the arsenic content were carried out for two steels by SONP (unpublished report); the arsenic content varied between 0.020 to 0.230%. Primarily, the malleability in the hot state, the hardening ability and the cutting properties of the steel were investigated. Arsenic proved to have little influence except on the tendency to develop cracks during quenching. A specific problem is the presence of arsenic in high alloy chromium and chromium-nickel steels; the economic utilisation of the scrap leads in this case to a gradual increase of the As and P contents. These two elements have a similar influence on the properties of steel. Due to this fact and to the above mentioned economic considerations, the influence of both elements on the properties of high alloy

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Arsenic and Phosphorus in High Alloy Chrome-nickel Steels

steels was studied simultaneously on the following steels:

a) Ferritic chromium heat-resistant steel ČSN 17153 - heats containing As and P, respectively: 0.08 to 0.13% C, 0.89 to 1.20% Mn, 0.97 to 1.16% Si, 0.030 to 0.040% P, 0.015 to 0.016% S, 0.89 to 0.95% Ni, 23.24 to 25.33% Cr, 0.0072 to 0.182% As; 0.11 to 0.13% C, 0.85 to 1.02% Mn, 1.05 to 1.22% Si, 0.030 to 0.109% P, 0.017 to 0.029% S, 0.91 to 1.00% Ni, 24.89 to 25.33% Cr, 0.020 to 0.035% As.

b) Austenitic chromium-nickel anti-corrosion steel ČSN 17246 - heat containing As and P, respectively: 0.07 to 0.12% C, 1.76 to 1.93% Mn, 0.90 to 0.96% Si, 0.020 to 0.042% P, 0.014 to 0.017% S, 8.56 to 8.95% Ni, 13.94 to 19.42% Cr, 0.37 to 0.50% Ti, 0.013 to 0.197% As; 0.11 to 0.12% C, 1.51 to 1.83% Mn, 0.84 to 0.96% Si, 0.025 to 0.117% P, 0.016 to 0.027% S, 8.24 to 8.77% Ni, 18.97 to 19.31% Cr, 0.34 to 0.42% Ti, 0.020 to 0.035% As. ✓

Stepped contents of As and P has enabled determining the maximum content of each of these elements. Detailed investigations were made of the following properties: microstructure and physical properties, mechanical properties, properties at elevated temperature.

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Arsenic and Phosphorus in High Alloy Chrome-nickel Steels

temperatures (malleability, weldability, corrosion resistance). In the experiments the influence was determined of As between 0.01 and 0.2% and also of P between 0.025 and 0.1% on the characteristic properties of heat-resistant ferritic chromium steel and stainless austenitic chromium-nickel steel. In the case of ferritic steel the influence of increasing As content from 0.06% manifests itself on the heat resistance, the corrosion resistance and weldability, whilst the influence of P above 0.06% manifests itself on the properties, the weldability and the corrosion resistance. In the case of austenitic steel, an As content above 0.05% leads to a decrease in the impact strength and the corrosion resistance and a P content above 0.05% will also lead to a reduction of the impact strength and the corrosion resistance and an increase of the strength. The results give an indication of the maximum As and P contents which can be tolerated in the types of steel investigated. There are 21 figures, 4 tables and 4 references: 1 Soviet and 3 Czech.

ASSOCIATION: Výzkumný ústav hutnictví železa, Praha (Ferrous Metallurgy Research Institute, Prague)

SUBMITTED: August 4, 1960

Card 4/4

KROTEK, M., inz.; BENES, F., inz.

Statistical methods for determining the fatigue of steel. Hut
listy 17 no.2:86-94 F 1/2.

1. Vyzkumny ustav hutnictvi zeleza, Praha.